



If you see a HAB...

- Stay out of water that may have a HAB.
- Do not let children or pets play in HAB debris on shore.
- After swimming/wading in water, even with no visible HABs, rinse off with fresh water and soap as soon as possible.
- NEVER swallow untreated surface water. It may contain algal toxins or other bacteria, parasites, or viruses that could cause illness if consumed.
- Do not let pets lick or eat HAB material from their fur.
- Do not drink or cook with suspect water. In-home treatments like boiling, chlorine bleach, or water filtration units offer no protection against HAB toxins!
- See a doctor if you or your children might be ill from HAB toxins.
 - Contact your veterinarian for sick pets.

Fishing and other activities...

Consume minimal amounts of fish fillets from water bodies with recent HAB events. Research indicates toxin levels are highest in the internal organs but may be found in fillets. At a minimum, remove the skin and wash fillets thoroughly before cooking; be sure not to use HAB affected water.

Other activities near water such as camping, biking, picnicking, and hiking are safe. If you are picnicking, and have had contact with suspected water or shore debris, be sure to wash hands before handling food.

When in doubt, STAY OUT!

Have fun on and in the water, but know that harmful algal blooms (HABs) are a global problem in lakes, rivers, and other water bodies. Knowing how to identify HABs and being alert can keep you, your family, and your pets safe!

Avoid contact with water that:

- Looks like spilled paint
- Has surface scum, mats, or films
- Is discolored or has colored streaks
- Has green globs floating below the surface

And always avoid...

Swallowing water from lakes or other water bodies!

Report a bloom to...

The Pennsylvania Department of Environmental Protection (PADEP) at 814-332-6839

For more information visit

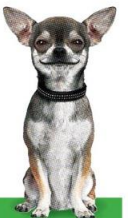
www.regsciconsort.com



Harmful Algal Blooms



What you can do to protect your family and pets.



COME VISIT US TODAY!

What are algal blooms?



Algae are tiny organisms that are found in water. Most types are beneficial; they produce oxygen and food for animals that live in the water. However, when conditions are favorable (such as increase in water temperature and nutrients) algae can produce algal blooms, or a large dense growth of algae. Large blooms, even non-toxic ones, can affect ecosystem health. Some blooms create dead zones as massive amounts of algae die and bacteria decompose the organic matter. As they decay, they deplete oxygen in the water, and fish and other organisms can't survive.

Cladophora (below, left), water meal, and duck weed (below, right) are different types of aquatic plants and algae that are or commonly mistaken for a HAB. While they can be a nuisance and are not aesthetically pleasing, they do not produce toxins.



What are harmful algal blooms?

Harmful algal blooms (HABs) are caused by blue-green algae that produce toxins. Although the name implies algae, they are actually a type of bacteria called cyanobacteria. These microscopic organisms are found naturally in all types of water but grow quickly, or bloom, when the water is warm, stagnant, and full of nutrients. Blooms usually occur during summer and fall but can occur anytime during the year. When they produce toxins, these blooms can become dangerous. Even after the visible blooms subside, the toxins may still be present in the water.

HABs have been observed worldwide, including Lake Erie and other Pennsylvania waters, and can occur almost anywhere: lakes, ponds, stormwater retention basins, rivers, streams, or reservoirs. These blooms are generally characterized by surface scums that resemble spilled paint. They are often green or blue-green, however they may also be brown, black, white, purple, or red. Swallowing or contact with affected water or scum can cause serious illness.



How will I know if there is a HAB?

Look for posted HAB advisories or visit www.RegSciConsort.com for advisory postings because colorless toxins can remain in the water after visible blooms fade.

Confirmation of HABs can only be made under a microscope, with a field test kit, or via laboratory testing. HABs generally occur from late summer to fall when the water temperatures are warm and an abundance of sunlight and nutrients are available. However, HABs can occur anytime of year under optimal conditions.

How dangerous are HABs?

Humans, pets, livestock, and wildlife that come into contact with or ingest HAB toxins can experience sickness, paralysis, or even death.

Know the signs of HAB poisoning:

- **Humans:** rashes, blisters and hives, and eye and nose irritations. If swallowed can cause diarrhea, vomiting, abdominal pain, numbness of lips, tingling in fingers and toes, dizziness, and headache.
- **Pets/Livestock/Wildlife:** staggering, difficulty breathing, weakness, salivation, vomiting, and convulsions.